308 Chestnut Ch

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Cholera [redacted]

Essay on Cholera of the East.

by

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of

Philadelphia.

Ut potero explicabo; nec tamen ut Pythius Apollo, certa ut sint et fixa, quae dixero; sed ut homunculus, probabilia conjectura sequens.

From Man's first fall, when the fruit of his disobedience was expulsion from Eden to the present day, he has been subject to many ills; his punishments and his sufferings have been severe. We find him at one time nearly swept from the face of the Earth by the Deluge of Waters; at another famine strides with destructive fury over the land and leaves but few to tell the story of his ravages. The Earth himself opens wide and vomits forth Oceans of liquid fire; which like the impetuous torrent, scorning all restraint buries man and his monuments for ever. Yet he, with difficulty arising from the ruins of his former splendour, still seeks for means of further annihilation. He seizes the implements of War and rushes to destroy his fellow, though at that very moment, he should himself be sinking under the deadly grasp of Pestilence. From the last of these sources he has however been the greatest sufferer; for Disease has been his constant attendant; and it would be an almost endless task, if not altogether impossible, to enumerate the various forms under which, he has, at different times, swayed his sceptre over oppressed man. From this immense multitude, I have selected one for the subject of the following remarks; one which, with a mighty arm, has caused whole nations to flee before him, striking dead at a single blow, all those whom he overtook.

I refer to an Epidemic, not of modern origin, but which has only of late years been made known to us under the different appellations of Spasmodic Cholera, Mort de Chien and Cholera Morbus. Whether the disease, of which I am about to treat, was known to Sydenham, in its most violent form, is still a disputed point. Dr James Johnson states positively that it was, while Dr Good and others affirm the contrary. It has of late been ascertained that the Nations of the East have, for centuries at least, been subject to this dreadful Epidemic. We receive however the first accurate account of it, as occurring at Trincomale and along the Coromandel Coast in the year 1782, from the publications of Dr Curtis, Surgeon attached to the fleet under the Command of Sir Edward Hughes; and also from the writings of Dr Lindlestone. From this period there is a gap in its existence until August 1817, when it made its appearance at Bejoor, about one hundred miles North East of Calcutta, whence it proceeded in a South Westerly direction, and first reached Calcutta in September of the same year. Leaving this it changed its route and travelled in a North West course, visiting almost every town or village in the Northern provinces of Hindostan. Stopped suddenly in its

progress Northward, as if impeded by the range of Mountains near the borders of Thibet, it is seen gradually moving towards the South, spreading from one shore to the other. The settlements of Bombay and Goa, situated on the Malabar Coast, felt deeply in their turn its destructive presence. The same progressive step did it pursue on the Eastern Coast, depopulating the whole Delta to the Uttermost point of the Carnatic. Nor does it stop here, for we see it crossing the strait, which separates the Island of Ceylon from the Continent, and if possible, assuming a shape still more alarming. In the month of November 1819, as if rising from the Ocean, it takes possession of the Isle of France. Thus far did it extend Westerly. Nor was its progress more limited towards the East. It passed over in its course the Kingdoms of Siam Malacca, Cochin China, visited Macao, the Portuguese settlement at the mouth of the Bocca Tigris, also Canton, and advanced some distance into the adjacent districts. A second time it leaves the Continent, and our attention is called to witness its ravages throughout the Philippine Isles, its principal force being spent in the neighbourhood of Manilla. Such then was the course of this Epidemic, during the years 1817. 18. 19, since which time, it has again made its appearance in different sections of the East.

I will first ask what is Cholera Morbus? how produced? and whether or not it is contagious? These questions I will endeavour to answer after I have given some account of it, as described by the different persons, who have written upon it; and first of Dr Curtis. He mentions it as coming on almost invariably with a watery purging accompanied by slight tenesmus, but no spasm, these occurring some hours after, and commencing generally in the feet, and gradually extending themselves to the legs and thighs. Great prostration is induced, the surface of the body becoming pale, and the extremities cold. At this period nausea and vomiting are added to the patients suffering; the fluid ejected being similar to that of the purging, consisting of a watery liquid containing small particles of mucus; but no bile is observable. The danger in each case was proportionate to the rapidity, with which the spasms followed the first attack and the degree of force with which they seized upon the muscles of the Thorax and Abdomen. He describes the kind of spasm, as being a fixed cramp in the belly of the muscle, which is gathered into a hard knot with excruciating pain. In a minute or two this relaxes, is again renewed, and lastly it passes from one set of muscles to another. The Countenance now assumes

a sallow and deathlike appearance, the pulse becomes small and scarcely perceptible but not quickened. Should the spasm cease for any time the countenance becomes less ghastly, and the pulse is more distinct. The Tongue is white and somewhat furred towards the root; great thirst and a strong desire for cold drinks, but no relief is afforded by them, they being instantly ejected. The head is scarcely ever affected by pain; neither does the mind seem to suffer, for many retain their faculties, even after the pulsations of the heart ~~were~~ are no longer distinguishable. Spasms having endured some time, a clammy sweat breaks out over the whole body, which appears to be forced out by their violence. The finger nails become livid, the palms of the hands white and wrinkled. These latter symptoms, says he, are always followed by dissolution. After the commencement of vomiting to the conclusion of the scene, every thing swallowed is immediately ejected, as if by a convulsive contraction of the Stomach. This condition remains some hours, when the spasms abating, the internal oppression becomes more harrassing, and the patient soon sinks from suffocation.

In this which he considers the most violent form of the Epidemic, he has tried almost every mode of treatment, and according to his own

Statement with very little success. He places but little confidence in opiates except in the very forming stage of the complaint, and not even then unless combined with some powerful stimulant. The purgative plan he condemns altogether, after having tried it to every extent. Considering it a disease of Weakness or Debility (to all which he gives excess of nervous excitement) he appears to place most confidence in the stimulating practice. In corroboration of this view, he mentions that Epilepsy and Hysteria (when they can not be traced to any distinct irritation) are most effectually cured by tonics and stimulants; and even tetanus itself has been overcome by repeated draughts of strong liquors.

The description of the disease, as given by Dr James Johnson, differs so little from that of Dr Curtis, that it is unnecessary to state it here. He coincides with him also in not attributing it to an increased secretion of Bile; and inveighs bitterly against those who consider the generality of the diseases of Warm Climates as dependent upon that cause. He enters at some length into a discussion to prove this point. I will give one of his arguments in his own language.

"Now it seems to me somewhat curious, that if an increased secretion of Bile were the cause of the disease, we should see nothing of it

"till some time after the effects become obvious! Where is this increased "secretion all the time? Not in the Stomach, for it discharges its "contents long before; and no signs of Bile. It is not in the Intes-"tines for the Stools are themselves thin and watery. At length pure Bile "makes its appearance; and lo! it is accused of being the cause of all."
He differs however from him in the treatment; he recommending repeated and large doses of Calomel and Opium to increase the secretion of the Liver, and to quiet spasmodic action; also the warm bath and blisters to induce perspiration and excite the Skin to the performance of its proper functions.

We have also accounts of Cholera, as occurring in the Isle of France, in the year 1819, from two different persons, Dr. Kennis and C. Telfair Esqrs. That of the former corresponds very nearly with those of Doctors Curtis and Johnson, differing but slightly in his practice from the latter. Mr Telfair appears to have been frightened into his account. I will give an extract in his own words.

"The Abdomen becomes distended like a drum, all ejections cease, the "clysters, which are thrown up are retained, the medicines, which are "swallowed and the liquids, are not vomited, notwithstanding the "convulsive efforts of the patient." This part of his portrait is in direct

variance with that of Dr. Kennis, who speaks of the disease as happening at the same time and in the same place, and also with that of every writer upon the complaint. He then states that seeing there is little hope of cure he flies to his plantation in the country, where keeping in mind the good old adage, "An ounce of prevention is worth a pound of cure," he commences giving his negroes better and more substantial food; he also treated them once a week to a dose of Calomel, and twice a week to a quantity of salt water taken from the Sea; and these by way of preventives. He concludes his remarks by stating that he considers Cholera as highly contagious, but that he keeps his opinion to himself.

The disease has differed nothing in its subsequent returns, and the mode of treatment has been little changed from that recommended by Dr. Johnson.

In the year Eighteen hundred and twenty one, during a residence of eight months in Canton, I had many opportunities of witnessing it in its most appalling shape. Some time after our arrival, the weather being extremely warm, a boat was despatched in the morning from Whampoa to Canton, a distance of fifteen miles, which returned

the same afternoon. One of the sailors employed in rowing, soon after regaining the Ship, was seized with this Epidemic. The attack commenced with a check of perspiration, coldness of the surface, uneasiness in the pit of the Stomach, with a constant inclination to go to stool; when nothing was voided but a thin mucus resembling that in the first form of Dysentery. Some time after this, spasms made their appearance, and almost instantly vomiting began, when the medicine taken and the same kind of watery mucus, were ejected from the stomach. From this moment, nothing was retained after it was swallowed. In this situation he continued nine hours, after which he was free from pain and spasm, and breathed his last, the powers of life appearing to be crushed by the violence of the spasms. This being the first case, no suspicion was entertained of its character. Fifteen grains of Calomel were administered, and no further attention was paid him, till spasms and vomiting roused those on board to the nature of the attack. Laudanum and Calomel were now given and as quickly ejected. Hot bricks wet with vinegar were placed under the bed clothes, and the surface of the body rubbed with hot fomentations. Large draughts of hot Brandy

toddy with cloves steeped in it were given and in fine every thing was done, which fear could suggest; but all to no purpose. The man died in a little more than ten hours after he first complained of indisposition.

The morning after the death of this man, an Old Chinese, who supplied our ship with provisions, mentioned that he had a never-failing cure for the disease. Upon being questioned he informed us that simply stopping the circulation of the blood in one arm, and a single dose of medicine were sufficient to overcome the disease in its worst form—

In a few days we had an opportunity of testing, what, we considered would do no harm if it did no good. 'Twas in the case of a Boy on board of our own vessel, who did not complaine of being unwell till spasms and vomiting had made their attacks.

A tourniquet was applied to the left arm, and the circulation completely stopped. The patient shortly after was relieved from spasm, and the medicine taken (Castor Oil) remained upon the Stomach, without creating the slightest nausea. Upon its operating the tourniquet was removed, and a second dose of Oil was administered.

The boy was well the next day. The tourniquet appeared to act as a Counter-irritant, inviting the flow of blood to the surface, by which the internal viscera were relieved. Upon the arrival of Dr. Rhees of this city in Canton, I had many opportunities of seeing it fully tried and its efficacy firmly established. The pain in the part below the tourniquet was excruciating; the patient suffering almost as much from that in the arm, as he did previously from the spasms. In one case in which I saw it applied by Dr. Rhees, the patient complained so bitterly of the torture that was inflicted upon him, and begged so imploringly to have his arm released, that he (Dr. Rhees) was prevailed upon to do so; when immediately the spasms returned; but were as speedily again overcome, upon the reapplication of the tourniquet.

Many opinions have been entertained concerning the Causes of this Epidemic. Some have attributed it to the cold and damp winds of the night, causing a sudden check of perspiration, whereby something deleterious was retained in the system, which should have been thrown off by the skin. Others ascribed it to the detention of diseased Bile in the Alimentary Canal. While a third conceived it to be produced by exhalations from the earth passing in different

directions through the atmosphere. The first opinion I shall pass by in silence. The second has been refuted by Dr. Johnson; so that the third and last that has been offered is the only one that stands on any foundation. In examining however into the situations when, and periods at which it occurred; I think it will appear that it is unconnected with the direction of the winds or the state of the atmosphere. In the year Eighteen hundred and eighteen the Epidemic prevailed equally on both the Malabar and Coromandel Coasts; their climates at the same time being totally different. One coast is deluged with rain for some months, while the other is free from any; one receives the cooling breeze from the sea, while the other is burning up from the parched air from the land, amounting almost to a hurricane bearing with it the sand of the neighbouring desert. Yet under circumstances so different, and in situations so distant, the disease is equally present and to the same alarming extent.

Whatever may be its remote cause; the proximate cause is a check of perspiration, subsequent collapse, and consequent propulsion of the blood to the centre of the system. Cholera then I would define to be

a disease, not of Debility as stated by almost every one who has spoken upon this point, but of Oppression, caused by the too great accumulation of blood in the different viscera, and particularly in those connected with the portal circulation. It may be difficult to explain the cause of the spasms; the intimate connection, however, between the brain and the different viscera affords to my mind the best solution.

Two distinct and very opposite affections are present at the same time; great irritability and prostration of the functions of the Alimentary Canal, with impeded action of the heart and arteries, together with a violent increased action of the muscles: both together I am totally unable to explain by Debility. Yet debility, by every one who has treated of this Epidemic, is contended for as the cause. This Debility appears to me to be the asylum of Ignorance, to which every one flies, when in want of an explanation his weak brain is unable to afford. I have seen a man, at the point of death one day, cooking before a large fire the next. Could this disease be called one of Debility.

The supporters of this opinion contend that the means employed to

combat a disease will point out its nature, stating at the same time, that it is only to be subdued by Tonics, Stimulants and Narcotics. That it has been cured by tonics, properly so called, I deny; and also that it has been overcome by any Narcotic, except Opium. That, in the commencement of an attack Stimulants have succeeded I will grant, but these have always been of a diffusible nature. And to this property do I attribute their effect. We know the diffusible Stimuli create a general action, throughout the whole system, almost instantaneously; they equalize temperature, and excite the functions of the Skin. In the same manner, would I account for the effect of Opium. We give Opium in the cold stage of an Intermittent, and its efficacy no one will dispute; it acts here as a diffusible. But latterly it has been resorted to during the Hot stage of the same complaint, and has been found, by every practitioner of eminence in this city, to afford the most certain relief. We must here again refer its operation to its diffusible properties, and not to its Stimulating and Narcotic character. Again, bloodletting, in the commencement of an attack of Cholera is most efficacious, as I have seen proved by repeated trials. All these remedies, however, fail, after

the evil has prevailed for any time, and the blood becomes congested. In this state I have seen bloodletting extinguish life almost instantaneously; nor is the explanation very difficult. After the blood has become firmly congested in the internal organs, scarcely sufficient remains in the external portions of the body to support the life of those parts, which being taken away the system sinks. If however, from the warm bath &c. a reaction can be produced, then the most beneficial results may be obtained from venesection. Emetics have also been resorted to in the commencement with decided advantage.

The idea of its being contagious, once an almost universal opinion, has at present but few supporters. This Epidemic, according to the statement of Mr. Telfair, was imported into the Isle of France, by a British Frigate, from the Island of Ceylon; and that consequently it must be contagious. His conclusion is just what I should have expected, after the very lucid, and in his own mind, correct account he has given us of the Disease. Admitting it to have been conveyed by the Frigate to the Island, I can in no manner conceive this to be a proof of the contagiousness of its character. We have many accounts of the introduction of Yellow fever

into different ports of Europe, by vessels from the West Indies, and particularly into Gibraltar and Comma. The vessel entering the latter port, after the expiration of her Quarantine, was discharged of her cargo, and not a single case of sickness occurred among the labourers employed. Some time afterwards, it was found necessary to remove, from the bottom of the vessel a plank, which was found to be decayed; when all those who assisted in this latter task, were shortly after attacked with Yellow fever. This is what Mr. Telfair has ventured to call Contagion. Sir Gilbert Blane has endeavoured to support by ingenious arguments what Mr. Telfair has only asserted; it is however impossible here to enter into any discussion upon this head, as it would lead to a very long paper.

It is said likewise to have been introduced into the Philippine Isles, by a Country Ship, from Bengal; no case having been known to the inhabitants, previous to the appearance of the vessel in the port of Manilla. Even the natives themselves had no idea that the progress of this scourge was owing to Contagion. They conceived it to be a diabolical scheme of foreigners to drive them from the

Island, believing the waters to have been poisoned by them, and in consequence commenced a dreadful slaughter of all Strangers, in which many of our own Countrymen suffered.
The crew of the American Frigate Congress, after leaving the port of Manilla, on her return to the United States, were afflicted with this Epidemic, until they had almost reached the coast of South America. From this circumstance, many in this country, believed the disease contagious; but I should rather advance this as an additional support to the facts, of which we are already in possession in regard to Epidemics. I refer to a circumstance, which has been well exemplified in the fever which has for the last five years overrun this country, that many are not attacked, until a long time after they have been exposed to the predisposing cause; the seeds of the disease remaining dormant in the system. I shall conclude by stating, that I do not consider Cholera Morbus as belonging to the number of the few disorders which are at this day deemed contagious, but that it is owing to some change in the Atmosphere, but what that change is, I will not pretend to say. I will further state, that I consider no

disease as contagious, upon which our omnipotent and most bountiful Creator has not set an outward mark as visible as that imprinted upon the forehead of Cain—